

THE ECOTECHNOLOGIES – MAJOR ROUTE OF DURABLE- SUSTAINABLE DEVELOPMENT IN THE METAL MATERIALS INDUSTRY

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Abstract

The paper shows that the durable-sustainable development depends on the quality of the events occurred in the convergence area between the natural ecological system (N.E.S.) and the technological system (T.S.), represented by the metal materials industry. The analysis is carried out in the following situations:

- Decrease in the level of negentropy (nS) of N.E.S., due to the consumption of natural resources by T.S., and
- Increase in the level of entropy (S) of N.E.S., due to the discharge into the environment of the pollutants generated by T.S.

The ecotechnologies constitute a major tool for optimizing the correlations N.E.S.-T.S.

We propose the classification of ecotechnologies in four categories.

The ecotechnologies are characterised according to their influence on nS and S .

It is highlighted the role of ecotechnologies in reducing the environmental entropisation phenomenon.

Keywords: sustainability, durability, ecotechnologies, environmental (neg)entropy.